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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/580,215 | 05/23/2006 | Gerard Aldin | 128119 | 9839 |
| 25944 | 7590 | 11/16/2007 | | |
| OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850 | | | EXAMINER BASINGER, SHERMAN D | |
| | | | ART UNIT 3617 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/580,215

Applicant(s)

ALDIN ET AL.

Examiner

Sherman D. Basinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 29-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-27, 29-32, 34, 35 and 39 is/are allowed.
- 6) ☒ Claim(s) 1-7, 12, 33 and 36-38 is/are rejected.
- 7) ☒ Claim(s) 8-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/23/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

1. The preliminary amendment filed May 23, 2006 has been received.

Specification

2. The abstract of the disclosure is objected to because legal phraseology such as "said" has been used in the abstract. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claim 32 is objected to because of the following informalities: objection is made to the use of parenthetical expressions "(alternatively up and down)" and "(alternatively offsetting from port to starboard)" in claim 32. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 33 and 36-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Regarding claims 33 and 36, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
7. Claim 38 is incomplete because the claim from which it depends has not been set forth. Should claim 38 depend from claim 27?
8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant has not described in detail how the second substantially vertical aileron is able to rotate freely around the submersible strut as claimed in claim 4 while under a restoring torque as claimed in claim 5.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill in view of Flettner.

For claim 1, O'Neill discloses a hydrodynamic stabilizer for a boat (10), comprising a strut (12) submerged in the water supporting at its end a first substantially horizontal submerged aileron (20), mounted able to rotate with respect to the submersible strut according to a horizontal pivot (18).

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O'Neill does not disclose that the first aileron (20) comprises a trailing edge flap jointed to rotate around an axis near to the trailing edge of said aileron and wherein said flap is controlled by a rotational drive mechanism with respect to said aileron so as to orient said aileron.

Note for Flettner the first aileron (3) comprises a trailing edge flap (5) jointed to rotate around an axis near to the trailing edge of said aileron and wherein said flap is controlled by a rotational drive mechanism 8 with respect to said aileron so as to orient said aileron. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to provide to the aileron 20 of O'Neill a flap similar to 5 of Flettner and a drive mechanism similar to 8 of Flettner so that the flap could help move the aileron in the manner taught by Flettner to reduce the amount of force needed to move the aileron.

12. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over

O'Neill and Flettner as applied to claim 1 above, and further in view of Mirande.

O'Neill does not disclose a second substantially vertical aileron (2) able to rotate freely around the submersible strut (5) and comprising a trailing edge flap (8) jointed to rotate around an axis near to the trailing edge (22) of said second aileron (2), said flap (8) being controlled by a rotational drive mechanism with respect to the second aileron (2) so as to orient said second aileron (2).

Note the vertical aileron 16 of Mirande and the trailing edge flap and its drive mechanism 3 and 8 of Flettner. It would have been obvious to provide to the strut of O'Neill a substantially vertical aileron similar to that of Mirande with a trailing edge flap and drive mechanism similar to that of Flettner. Motivation to do so is to provide a means to steer the boat of O'Neill that uses a trailing edge flap to reduce the forces necessary to rotate it. The aileron of Mirande is considered to be able to rotate freely to freely orient itself in the local flow direction of the water absent actuator 60.

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The return means of claim 5 or the motor means of claim 2 would be similar to 60 of Mirande.

The hydrodynamic lift element of claim 6 would be similar to 5 of Flettner as provided to the streamlined fairing similar to 16 of Mirande.

13. Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mankawich in view of O'Neill and Flettner.

Mankawich discloses at least one stabilizer (40) carried by a substantially horizontal arm (17) integral with the boat (10), said arm (17) being located above the water.

Mankawich does not disclose that the stabilizer is according to claim 1. The combination of O'Neill and Flettner as set forth above provides a stabilizer according to claim 1. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to replace stabilizer 40 of Mankawich with a stabilizer similar to that of O'Neill as modified by Flettner as set forth in paragraph 11 above. Such a stabilizer will provide very good stability to the watercraft of Mankawich.

With regard to claim 12, O'Neill discloses a calculator (64) cooperating with static and/or dynamic sensors (see the Description of the operation of O'Neill) and piloting the orientation means of the aileron or ailerons so as to vary their orientation according to the movements of said boat.

Allowable Subject Matter

14. Claims 13-27, 29-32, 34, 35 and 39 are allowed.

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15. Claims 8-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. Claims 33 and 36-38 are would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Anderson is cited to show the resilient shock absorption assembly that mounts between sail rigging lines and a boat hull. Japan 57-4486 is cited to show control of fins by a gyro unit, radar and accelerometer.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherman D. Basinger whose telephone number is 571-272-6679. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel J. Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sherman Basinger/
Sherman Basinger, PE
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11/8/07